WHAT IS CLAIMED IS:

1. An isolated DNA encoding a *Thermus sp.* plasmid replication protein, said isolated DNA comprising the sequence of SEQ ID NO:4 or conservatively modified variants thereof.

2. A recombinant plasmid comprising at least one *Thermus sp.* replication origin, wherein said replication origin includes the isolated DNA sequence of claim 1.

3. The recombinant plasmid of claim 2, further comprising at least one promoter sequence selected from the group consisting of the DNA sequence of SEQ ID NO:6, residues 27-32 of SEQ ID NO:6, residues 50-55 of SEQ ID NO:6, residues 86-90 of SEQ ID NO:6, and residues 109-114 of SEQ ID NO:6.

4. An *E. coli sp.* host cell transformed with the recombinant plasmid of claims 2 or 3.

5. A *Thermus sp.* host cell transformed with the recombinant plasmid of claims 2 or 3.

6. An isolated DNA encoding a *Thermus sp.* promoter, wherein said isolated DNA is selected from the group consisting of the DNA sequence of SEQ ID NO:6, residues 27-32 of SEQ ID NO:6, residues 50-55 of SEQ ID NO:6, residues 86-90 of SEQ ID NO:6, and residues 109-114 of SEQ ID NO:6.

7. An isolated DNA encoding a *Thermus sp.* plasmid replication protein, said isolated DNA comprising the sequence of SEQ ID NO: 7 or conservatively modified variants thereof.

8. A recombinant plasmid comprising the isolated DNA sequence of claim 7 and a functional replication origin comprising the DNA sequences of SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, and SEQ ID NO:15 and the complements of the DNA sequences of SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, and SEQ ID NO:15.

9. An *E. coli sp.* host cell transformed with the recombinant plasmid of claim 8.

10. A *Thermus sp.* host cell transformed with the recombinant plasmid of claim 8.

11. A method for cloning *Thermus sp.* plasmid genes comprising the steps of:

(a) isolating plasmid DNA from *Thermus sp.* cells;

(b) inserting said plasmid DNA into a recombinant plasmid comprising a thermostable kanomycin-resistant gene and an *E. coli* replication origin;

(c) transforming an *E. coli sp.* host cell with the recombinant plasmid of step (b) and culturing said *E. coli sp.*

host cell under conditions suitable for the expression of said recombinant plasmid;

(d) isolating cloned recombinant plasmid from said cells; and

(e) transforming a *Thermus sp.* host cell with said cloned recombinant plasmid from step(d) and culturing said *Thermus sp.* host cell under conditions suitable for the expression of said recombinant plasmid.